DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 82.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-026425
Date Inspected: 19-Sep-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Westmont Industries

OSM Arrival Time: 600
OSM Departure Time: 1430
Location: Santa Fe Springs, CA

CWI Name: Patrick Fitzgerald

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006 L & R
Component: Maintenance Travelers

Summary of Items Observed:

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Westmont Industries (WMI) jobsite in Santa Fe Springs, California for the purpose of observing fabrication and QC functions for the SAS Superstructure, Bid Item #99, Maintenance Traveler and Bid Item #100, Maintenance Traveler (Bike Path).

E2/E3-WB Traveler (South) & (North)

This QA Inspector randomly observed WMI production welder Mr. Daniel Grayum (WID # 3049) performing fit up, tack welding and welding activities using Flux Core Arc Welding (FCAW) on the E2/E3-WB Traveler Assemblies. This QA Inspector observed Mr. Grayum performing the FCAW in all positions, randomly throughout the shift.

Traveler Trolley Train Suspension System Assembly

This QA Inspector randomly observed WMI production personnel Mr. Richard Fuentes and helpers continuing to assemble trolley train suspension system randomly throughout the shift.

This QA Inspector randomly observed that Smith Emery, CWI, QC Inspector Mr. Patrick Fitzgerald was present, during the above mentioned welding and fitting activities. During random observation, this QA Inspector observed that the applicable WPS's and copies of the shop drawings, appeared to be located near each work station, where the above mentioned welding and fitting activities were being performed. This QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. This QA Inspector randomly observed QC Inspector Mr. Fitzgerald verifying the in-process welding parameters,

including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.

RPI Coating (Blast and Paint)
This QA Inspector performed random shop observations and observed that RPI Coating continuing sweep blast and prime coat application on the SAS EB Traveler. QA Inspector was informed by RPI Coating Quality Control (QC) Representative Mr. Preston Keen that RPI is going to sweep blast a another section and apply the Sherman Williams Zinc Clad II prime coat to the today. Later in the morning this QA Inspector randomly observed that RPI personnel performing sweep blasting activities on the SAS EB Traveler. After sweep blasting was completed, QA Inspector then observed Mr. Keen performing random surface profile checks on the sweep blasted base metal surfaces. This QA Inspector observed Mr. Keen utilizing a Testex Press-O-Film and a micrometer to perform the testing. During observation, this QA Inspector observed that the readings appeared to be 3.7 mils, 3.7 mils, and 3. 3 mils. Testing observed by QA Inspector appears to be in compliance with the contract requirements. After testing was completed this QA observed RPI Coating personnel masking areas to prevent overspray.

Later in the shift, this QA Inspector randomly observed RPI Coating performing what appeared to be primer application activities within what appeared to be within and 8 hour time frame form the above mentioned sweep blasting activities. Environmental readings taken by RPI at the time of primer application are as follows Air Temperature 69/94 F, Relative Humidity 71/40%, Wet Bulb Temperature 62/74 F, Dew point 58/68 F and Surface Temperature 68/89 F.

QA Inspector performed measurement on dry coating thickness with Type 2 (magnetic gage), DFT's thickness reading of the prime coated section coated on 09-16-11 are an average of three (3) thickness reading are as follows 3.7 mils, 4.1 mils, 3.9 mils 4.2 mils, 4.9 mils, 4.9 mils, 4.5 mils, and 4.7 mils. QA Inspector also, observed Mr. Keen documenting daily actives on RPI Coating QC Daily Inspection Report.

Mr. Keen informed QA Inspector that on the interim coating of the Sherman Williams Zinc Clad II, Inorganic Zinc Rich prime coating he would be performing ASTM D4541 – Standard Test Method for Pull-Off Strength of Coating Using Portable Adhesion Tester, ASTM D3363 - Film Hardness by Pencil Test, ASTM D4752 Measuring MEK Resistance to Ethyl Silicate (Inorganic) Zinc-Rich Primers by Solvent Rub and performing the Quarter test. Mr. Keen stated that he will be using a calibrated Elcometer Hydraulic Adhesion Tester Model 108 for the adhesion test and Sherman Williams R7 KIII High Solids compliant thinner #1 for the solvent rub test. QA Inspector selected one (1) location for adhesion tests for per each day of production.
Testing observed is as follows:
Prime coated on 9-12-11 (section 1), adhesion test 725 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test not performed.
Prime coated on 9-13-11 (section 2), adhesion test 435 psi (fail-glue), Pencil Test (pass), Quarter Test (pass) and Rub test not performed.
Prime coated on 9-14-11 (section 3), adhesion test 700 psi (pass), Pencil Test (pass), Quarter Test (pass) and Rub test not performed.
Prime coated on 9-16-11 (section 5), adhesion test 525 psi (fail-paint), Pencil, Quarter, and Rub test not performed.
Mr. Keen stated that he would glue additional dollies approximately 2 inches from the failing areas in section 2 and section 5 and would continue testing tomorrow.

WELDING INSPECTION REPORT

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Summary of Conversations:

QA Inspector informed SMR Mr. Nicolai Hvass of the above information.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Brannon,Sherri	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer